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(57) Abstract: The application discloses a method of making an antibody molecule, the antibody containing an immunoglobulin heavy chain comprising a  $\alpha 3$  domain or a  $\mu$  domain, the method comprising: (a) Providing a nucleotide sequence encoding the immunoglobulin heavy chain; (b) Modifying the nucleotide sequence in the region of the nucleotide sequence encoding the C-terminus 18 amino acids of the completed heavy chain to remove, or reduce the effectiveness of, one or more vacuolar targeting signal sequences to form a modified nucleotide sequence; (c) Inserting the modified nucleotide sequence into a host cell; and (d) Causing the host cell to express the modified nucleotide sequence to form the modified antibody heavy chain and secrete the modified antibody heavy chain from the host cell. This improves the secretion of the antibody from, for example, plant cells. Methods of adding J-chain binding activity to antibodies are also provided. The modified antibodies and their use is also disclosed.

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